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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,438	07/16/2003	Kotaro Yano	03500.017430.	6929

5514   7590   08/10/2007
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EXAMINER
YODER III, CHRISS S

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
08/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/619,438	YANO, KOTARO
Office Action Summary	Examiner	Art Unit	
	Chriss S. Yoder, III	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-13 are rejected under 35 U.S.C. 101 because it is not claimed as

embodied in computer-readable media, and are therefore, considered to be descriptive

material *per se*, based on MPEP 2106.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1.   Claims 1, 3, 8, 10, and 12 are rejected under 35 U.S.C. 102(e) as being

anticipated by Simon et al. (US PGPub 2003/0223622).

2.   In regard to **claim 1**, note Simon discloses an image processing apparatus

comprising an image obtaining unit, adapted to obtain image data from a recording

medium on which the image data has been recorded (paragraph 0043), face region

extraction unit, adapted to extract a face region of a person from the image data

obtained by said image obtaining unit (paragraph 0043), image feature amount

calculation unit, adapted to calculate an image feature amount of the face region

extracted from the image data by said face region extraction unit (paragraph 0081),

correction effect inference unit, adapted to infer whether or not a correction effect can

be obtained by correcting a characteristic of the image data, based on the image feature

amount calculated by said image feature amount calculation unit, and to output a first

inference result based on the inference (paragraph 0083), and image correction unit,

adapted to, in a case where it is inferred by said correction effect inference unit that the

correction effect can be obtained based on the first inference result, correct the

characteristic of the image data based on the image feature amount and thus output

post-correction image data (paragraph 0083).

3.   In regard to **claim 3**, note Simon discloses that said image feature amount

calculation unit calculates at least an area of the face region as the image feature

amount (paragraph 0081), and said correction effect inference unit infers the correction

effect from the area of the face region calculated by said image feature amount

calculation unit and thus outputs the first inference result (paragraph 0083) .

4.   In regard to **claim 8**, this claim is directed toward an image processing method,

corresponding to the apparatus of claim 1. Therefore, claim 8 has been analyzed and

rejected as previously discussed with respect claim 1.

5.   In regard to **claim 10**, this claim is directed toward a computer-readable medium,

corresponding to the apparatus of claim 1. Therefore, claim 10 has been analyzed and

rejected as previously discussed with respect claim 1.

6.   In regard to **claim 12**, this claim is directed toward a program for causing a

computer to execute steps corresponding to the apparatus of claim 1. Therefore, claims

12 have been analyzed and rejected as previously discussed with respect claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et

al. (US PGPub 2003/0223622).

8.   In regard to **claim 2**, note Simon discloses the use of a photographing apparatus

for photographing a subject (paragraph 0043), and that the image obtaining unit obtains

photograph information that has been recorded together with the image data from the

recording medium (paragraphs 0046-0047), said image obtaining unit obtains the

photographing information together with the image data from the recording medium

(paragraphs 0046-0047), a discrimination unit, adapted to discriminate the photograph

information obtained by said image obtaining unit (paragraphs 0047), and a correction

process control unit, adapted to control said face region extraction unit, said correction

effect inference unit, said image feature amount calculation unit, and said image

correction unit to perform a correction process of the image data on only the images

selected for enhancement, based on the discrimination of the discrimination unit (paragraphs 0046-0047).

Therefore, it can be seen that Simon fails to disclose that the photographing apparatus has a plurality of photographing modes, including a person mode which is optimum to photograph the person, and that the information recorded with the image data is information concerning the photographing mode. Official Notice is taken that the concepts and advantages of the use of a photographing apparatus having a plurality of photographing modes, including a person mode which is optimum to photograph the person, and the storage of information concerning the photographing mode together with the image data are notoriously well known and expected in the art in order to provide a capture mode that accurately captures the image based on the image capture conditions and to provide improved processing of the image at a later time based on the parameters stored at the time of image capture. Therefore, it would have been obvious to one of ordinary skill in the art to modify the Simon device to include the use of a plurality of photographing modes, including a person mode which is optimum to photograph the person, and the storage of information concerning the photographing mode together with the image data in order to provide a capture mode that accurately captures the image based on the image capture conditions and to provide improved processing of the image at a later time based on the parameters stored at the time of image capture.

9.   Claims 4-7, 9, 11, and 13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Simon et al. (US PGPub 2003/0223622) in view of Ohkubo (US

Patent #7,233,357).

10.   In regard to **claim 4**, note Simon discloses a face region correction unit, adapted

to, in a case where it is inferred by said correction effect inference unit that the

correction effect can be obtained based on the first inference result, correct a

characteristic of the face region and thus output post-correction face region data by

using the image feature amount of the face region (paragraphs 0081-0083).

        Therefore, it can be seen that Simon fails to disclose that said image feature

amount calculation unit further calculates a post-correction image feature amount being

an image feature amount of the post-correction face region data output by said face

region correction unit, that said correction effect inference unit further infers whether or

not the correction effect can be obtained and thus outputs a second inference result, by

comparing the image feature amount before the correction with the post-correction

image feature amount after the correction both calculated from the same face region by

said image feature amount calculation unit and then correcting the compared result, and

in a case where it is inferred by said correction effect inference unit that the correction

effect can be obtained based on the second inference result, said image correction unit

corrects the characteristic of the image data based on the image feature amount and

then outputs the post-correction image data.

        Although Simon does not teach the calculation of a post-correction image feature

amount that is used to compare with the image feature amount before the correction to

determine if the correction effect can be obtained, Simon does teach the verification of

the correction in order to determine if the correction is acceptable for output (paragraph

0045).

In analogous art, Ohkubo discloses the use of a comparison of image values

calculated before and after image correction in order to determine if the image

correction is acceptable for image output (column 12, lines 45-63). Ohkubo teaches

that the comparison of the image values before and after image correction is preferred

in order warn the user of possible problems with image correction and prevent images

that are improperly corrected from being stored (column 15, line 59 – column 16, line

10). Therefore, it would have been obvious to one of ordinary skill in the art to modify

the Simon device to include the use of a comparison of the image values before and

after image correction is preferred in order to prevent images that are improperly

corrected from being stored, as suggested by Ohkubo.

11.   In regard to **claim 5**, note Simon discloses the use of statistical distributions of

pixel data in the face region as the image feature amount (paragraph 0061; as for the

post-correction image feature amount, this limitation is met through the combination of

Simon with Ohkubo by using the calculation of statistical distributions of Simon with the

comparison of data before and after of Ohkubo).

12.   In regard to **claim 6**, note Simon discloses that the statistical distribution of the

pixel data is a lightness histogram indicating a distribution of lightness of each pixel or a

hue histogram indicating a distribution of hue of each pixel (paragraph 0061).

13.   In regard to **claim 7**, note Simon discloses that said image correction unit

corrects the characteristic of the image data by using a parameter used in the correction

by said face region correction unit (paragraphs 0061 and 0081-0083).

14.   In regard to **claim 9**, this claim is directed toward an image processing method,

corresponding to the apparatus of claim 4. Therefore, claim 9 has been analyzed and

rejected as previously discussed with respect claim 4.

15.   In regard to **claim 11**, this claim is directed toward a computer-readable medium,

corresponding to the apparatus of claim 4. Therefore, claim 11 has been analyzed and

rejected as previously discussed with respect claim 4.

16.   In regard to **claim 13**, this claim is directed toward a program for causing a

computer to execute steps corresponding to the apparatus of claim 4. Therefore, claims

13 have been analyzed and rejected as previously discussed with respect claim 4.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

US007187788B2: note the use of image enhancement of a facial region.

US 20060204124A1: note the use of image enhancement using a histogram.

US006101294A: note the use of image enhancement using a histogram.

US006148092A: note the use of image conversion to locate a face.

US006970199B2: note the use of the selection of a region of an image for

enhancement.

US006917707B1: note the use of image enhancement using a histogram.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chriss S. Yoder, III whose telephone number is (571) 272-7323. The examiner can normally be reached on M-F: 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CSY
August 2, 2007

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SPE. ART UNIT 2622